

Amendment to Claims

Please cancel claims 1-36 and enter new claims 37 to 43.

Claims 1-36 (Cancelled).

37. (New) A computer-implemented method for diagnosing a problem in a product using a Bayesian super model data structure which stores a predetermined set of problems, predetermined criteria for identifying problems in the set, and sub model data structures including actions for addressing the problems in the set, the method comprising:

receiving user input including criteria for identifying the problem;

comparing the received criteria with the predetermined criteria for identifying problems in the set of the super model data structure;

responsive to a match in criteria within an acceptable margin, selecting the problem from the set associated with the matched criteria;

selecting a sub model data structure storing actions for addressing the selected problem based upon the following predetermined criteria stored in the super model: a probability of the execution of one or more actions stored in the sub model solving the selected problem and a cost of the execution of the one or more actions; and

executing one or more actions stored in the sub model.

38. (New) The method of claim 37 wherein selecting a sub model data structure storing actions for addressing the selected problem is based further upon a predetermined measure of belief value in the sub model to address the selected problem, the measure of belief value being stored in the super model data structure.

39. (New) The method of claim 37 wherein the product is a computer printing system.

40. (New) A system for diagnosing a problem in a product comprising:

a memory for storing a Bayesian super model data structure including a predetermined set of problems, predetermined criteria for identifying problems in the set, and sub model data structures including actions for addressing the problems in the set;

a user input device for receiving user input including criteria for identifying the problem; and

a diagnostic system communicatively coupled to the user input device and having access to the memory storing the super model data structure for comparing the received criteria with the predetermined criteria for identifying problems in the set of the super model data structure, and responsive to a match in criteria within an acceptable margin, selecting the problem from the set associated with the matched criteria, and selecting a sub model data structure storing actions for addressing the selected problem.

41. (New) The system of claim 40 wherein the diagnostic system selects the sub model data structure storing actions based upon the following predetermined criteria stored in the super model: a probability of the execution of one or more actions stored in the sub model solving the selected problem and a cost of the execution of the one or more actions; and executes one or more actions stored in the selected sub model.

42. (New) The system of claim 41 wherein selecting a sub model data structure storing actions for addressing the selected problem is based further upon a predetermined measure of belief value in the sub model to address the selected problem, the measure of belief value being stored in the super model data structure in the memory.

43. (New) The system of claim 40 wherein the product is a computer printing system.